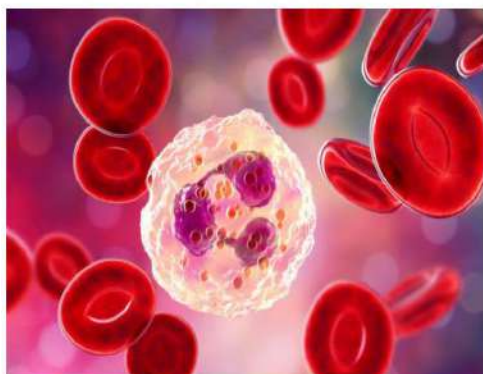


Essentials of Medical Diagnostics

(Skill Enhancement Course)

For under Graduate

SHADMA SIDDIQUI
RAJNI BAGDI



Anveshika Publishing & Informatics

Based on NEP Syllabus

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For Under Graduate

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Preface

Welcome to Essentials of Medical Diagnostics for Undergraduates. This book is designed to serve as a comprehensive guide for undergraduate students pursuing studies in the field of medical diagnostics and allied fields related to medical and paramedical. The book is divided into six units, each focusing on different aspects of medical diagnostics, from foundational principles to advanced imaging techniques.

Unit 1 provides an introduction to the field of medical diagnostics, laying the groundwork for understanding the importance of diagnostic procedures in clinical practice. Unit 2 delves into diagnostic methods used for the analysis of blood, covering a wide range of tests and their interpretations. Unit 3 focuses on diagnostic methods used for urine analysis, exploring the significance of urine tests in diagnosing various conditions.

Moving forward, Unit 4 sheds light on non-infectious diseases such as diabetes and hypertension, emphasizing the role of diagnostics in managing these prevalent conditions. Unit 5 takes a closer look at infectious diseases, with a special focus on tuberculosis and hepatitis, highlighting the diagnostic challenges and advancements in this area.

Finally, Unit 6 explores tumors and medical imaging, including X-ray imaging, CT or CT scan, tomography (PET) scan, and magnetic resonance imaging (MRI), providing a comprehensive overview of imaging techniques used in diagnosing tumors and other medical conditions.

We hope that this book will serve as a valuable resource for undergraduate students, offering them a solid foundation in medical diagnostics and preparing them for the challenges of clinical practice.

Acknowledgement

We are immensely grateful to Prof. (Dr.) Chandra Bahadur Singh Dangi, the Dean of the Faculty of Science and Director of the Faculty of Paramedical Sciences at Ram Krishna Dharmarth Foundation University, Bhopal (M.P.), for his invaluable suggestions and guidance on several crucial topics incorporated in this book. His expertise and insights have greatly enriched the content of this work.

We also wish to express our heartfelt gratitude to all the teaching staff whose support and assistance have been instrumental in the creation of this book. Their expertise and willingness to share their knowledge have been invaluable in shaping the content and direction of this work.

We would like to extend our sincere appreciation to Dr. Pravesh Verma and Dr. Navneet Kumar Yadav for their meticulous efforts in formatting this book. Their attention to detail and dedication have ensured that the presentation of this material meets the highest standards.

Lastly, we would like to thank all those who have contributed in any way to this endeavor. Your support and encouragement have been a source of motivation throughout this journey.

This book would not have been possible without the collective effort and support of all those mentioned above. We are truly grateful for your contributions.

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